

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1.-32. (Cancelled)

Claim 33. (Currently Amended) [[A]] The magnetic field generating source according to claim [[46,]] 37, wherein the adjusting bars are moveable in a direction perpendicular to the pole plate.

Claim 34. (Currently Amended) [[A]] The magnetic field generating source according to claim [[46,]] 37, wherein said adjusting bars are mounted movably in retaining means.

Claims 35.-36. (Cancelled)

Claim 37. (Currently Amended) ~~A magnetic field generating source according to claim 46, wherein~~ A magnetic field generation source comprising:

a yoke, connected with an upper press plate and a lower press plate, the lower press plate and the upper press plate being oppositely arranged; and

a pair of magnetic field generating sources and pole plates that are oppositely mounted on the respective press plates and are arranged to generate a magnetic field between them; wherein

each of said magnetic field generating sources includes a magnetic field adjusting device;

the magnetic field adjusting device comprises adjusting bars of a soft magnetic material mounted at the periphery of the magnetic field generating source;

the installed position of adjusting bars when mounted at the periphery of the magnetic field generating source is moveable in a direction substantially parallel to a magnetic field produced by the magnetic field generating source;

the resulting magnetic field generated by the magnetic field generating source is adjusted as a function of the installed position of the bars;
and

said adjusting bars have a rack structure, and are arranged to be driven by means of mating pinion gears.

Claim 38. (Cancelled)

Claim 39. (Currently Amended) The magnetic field adjusting device source according to claim [[46,]] 37, wherein said adjusting bars are dismountable for replacement with adjusting bars of different size or different magnetic properties.

Claim 40. (Currently Amended) The magnetic field ~~adjusting device~~ ~~or magnetic field~~ generating source of claim [[25,]] 37, wherein the shimming plugs or adjusting bars are arranged for adjustment in a synchronized manner.

Claim 41. (Currently Amended) The magnetic field ~~field adjusting device~~ ~~or magnetic field~~ generating source of claim [[25,]] 37, wherein the shimming plugs or adjusting bars are arranged for remote adjustment by one or more electric motors.

Claim 42. (Currently Amended) The magnetic field ~~adjusting device~~ ~~or magnetic field~~ generating source of claim [[41,]] 37, further comprising a computer programmed with magnetic field measurement and/or modeling software, the computer being arranged to control the electric motors to adjust the shimming plugs or adjusting bars in accordance with instructions provided in response to magnetic field measurement or modeling.

Claim 43. (Currently Amended) The magnetic field ~~adjusting device~~ ~~or magnetic field~~ generating source according to claim [[42,]] 37, wherein the

computer is arranged to control the electric motors to automatically adjust the shimming plugs or adjusting bars to achieve a desired level of field homogeneity.

Claims 44.-46. (Cancelled)

Claim 47. (Currently Amended) MRI apparatus comprising a magnetic field generation device according to claim [[45.]] 37,

Claim 48. (Cancelled)